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SOME MEDIEVAL CONCEPTIONS OF MAGIC.*

MAGIC is attracting attention to-day. Students of folk-lore and of the history of religion cannot afford to neglect it. Anthropologists have found that it colors much of the life of primitive man, and sociologists have begun to deal with it as an important social manifestation. It occupies no small part of the written remains of Assyria and Babylonia and of the Greek papyri; in fact, its traces are evident throughout the literatures of Hellas and of Rome. The middle ages too, although they have as yet received little attention from serious modern students of magic, were a time when there was a great deal of magic and no little talk about it.

It may help us in forming a satisfactory definition and theory of magic for our own use, if we note some previous definitions of it by men who actually lived in the midst of it and believed in it. In the case of the savage we apply our term "magic" to certain of his practices, but medieval men used the very same word "magic" as we, and on the whole the extant writers of the twelfth and thirteenth centuries discuss magic more fully and directly than those even of the days of the elder Pliny and Apuleius. The present article will set forth a number of discussions of magic or significant allusions thereto in books and writers of the twelfth and thirteenth centuries. Space will not permit me to give even an idea of the vast collection of

* The author has not seen proofs of this article, owing to his absence abroad.

medieval beliefs and practices which one might classify as magic. We must limit ourselves to a few authors who define magic and omit the many who illustrate the thing without designating it by that name.

THE "POLYCRATICUS" OF JOHN OF SALISBURY.

We turn first to *Polycraticus*,¹ written about 1159 by John of Salisbury, who studied and taught in various schools of western Europe, then was long employed in official church business, and finally became bishop of Chartres in 1176. The *Polycraticus* seems designed as somewhat light reading for the cultured public, and treats such "trifles" (*nugae*) as gambling, hunting, the theater and music. John confesses that the book is little more than a patchwork of others' opinions without acknowledgment of authorities; what he probably prides himself on most is the Latin style and the numerous quotations from classical and Christian authors. In short, it is a conservative work, repeating traditional attitudes in an attractive, dilettante literary form and with such rational criticism as some study of the classics may be supposed to produce when qualified by scrupulous adherence to medieval Christian dogma.

John's discussion of magic is what one might expect from these premises. He gives, except for slight changes in arrangement and wording and the introduction of a few new items of information, a stock definition prevalent among Christian writers at least since the time of Isidore of Seville. In his *Etymologies* (VIII, 9) Isidore put together from such sources as Pliny the Elder, Jerome, and Augustine an account of the history and character of the magic arts which would fill about five ordinary pages. This passage, somewhat altered by omitting poetical quotations or inserting transitional sentences, was otherwise copied

¹ Johannes de Saresberia, "Polycraticus sive De nugis curialium et vestigiis philosophorum," Migne's *Patrologia Latina*, Vol. 199.

word for word by Rabanus Maurus in his *De consanguineorum nuptiis et de magorum praestigiis falsisque divinationibus tractatus*, and by Burchard of Worms and Ivo of Chartres in their respective *Decreta*, while Hinemar of Rheims in his *De Divortio Lotharii et Tetbergae* copied it with more omissions.² It was also in substance retained in the *Decretum* of Gratian, whose epoch-making work in canon law appeared in the twelfth century.

This stereotyped theological definition of magic regards it not as one of many superstitions or occult arts, but as a generic term covering various superstitions and occult sciences. Very sweeping are the powers attributed to magicians. "The magicians, so-called on account of the magnitude of their evil deeds, are those who by divine permission agitate the elements, strip objects of their forms, often predict the future, disturb men's minds, despatch dreams, and slay by mere force of incantation." Magic thus includes prediction of the future as well as transformation of nature and bewitching of human beings. It subdivides into *praestigia* or illusions; *maleficia* or sorcery, literally "evil deeds"; and "various species of evil *mathematica*," a word used here in the sense of divination. Varro, "most curious of philosophers," distinguished four kinds of divination from the four elements, namely, pyromancy, aeromancy, hydromancy, and geomancy. Under these four heads, John asserts, are to be classed many sub-varieties. His list, however, includes some arts which might better be put under *praestigia* or *maleficia* than under divination. He names necromancers, enchanters, *vultivoli* (sorcerers employing human effigies of wax or

² Migne, *Patrologia Latina*, Vol. 199, cols. 406-409; 110: 1007-1110; 140: 839ff; 161: 760ff; and 125: 716-729. Moreover, Burchard continues to follow Rabanus word for word for some ten columns after the conclusion of their mutual excerpt from Isidore, while Ivo is identical with Burchard for 15 more columns. I think that I am the first to point out the identity of these five accounts. Professor Burr, in a note to his paper on "The Literature of Witchcraft" (*American Hist. Assoc. Papers*, IV, 241, 1890) has described the accounts of Rabanus and Hinemar but without explicitly noting their close resemblance, although he characterizes Rabanus's article as "mainly compiled."

clay), *pythii* or *pythonici*, *imaginarii* (who try to control spirits by use of images), *specularii* (who predict by looking into polished basins, glistening swords and mirrors), interpreters of dreams, chiromancers, *arioli*, *aruspices*, astrologers of various sorts, and so on.

We have already heard John speak of the evil deeds of the magicians. In a subsequent discussion in the second book of the *Polycraticus*,³ where he treats more fully and perhaps with more originality the various species of magic, his attitude continues to be one of unvarying, though not always very vehement, condemnation. He occasionally makes criminal charges against magic, such as exposing children to vampires or cutting them up and devouring them,⁴ and exclaims, "What shall I say of the necromancers . . . except that those deserve death who try to obtain knowledge from death?"⁵ He occasionally asserts that an occult art is irrational, as when he remarks that the error of chiromancy, "since it is not based on reason, need not be opposed with arguments,"⁶ or when he sneers with Cicero and Augustine at divination from sneezes and "inane incantations and . . . superstitious ligatures,"⁷ or when he affirms that the reputed nocturnal gatherings of witches are a delusion and that "what they suffer in spirit they most erroneously and wretchedly believe to happen in the flesh."⁸ But his chief reason for condemning the magic arts is the traditional Christian view, as old as Origen and Augustine, that they are due entirely to the influence of demons.* Scripture forbids them and God does not see fit to grant men such divining or transforming powers which he reserves for himself in signs and miracles. Indeed John's charges that magic is criminal and

* *Polycrat.*, Liber I, Prologus, and Caps. 1-23; Migne, 199: 415-475.

* *Polycrat.*, II, 17. *Ibid.*, II, 27. *Idem.* *Ibid.*, II, 1.

* *Ibid.*, II, 17. See too the Canon, *Ut episcopi* in Burchard's *Decreta*, Lib. X, Cap. 1.

* See my article on "The Attitude of Origen and Augustine Toward Magic," in *The Monist*, January, 1908.

irrational are but corollaries of his main thesis. These arts must be evil if demons are behind them, while their incredible pretensions can be explained only by the hypothesis of demon aid.

Although John repeats a stale definition, he indicates that the magic arts are still alive. Many varieties of ancient divination he says are now defunct;⁹ but books on oneiromancy are current.¹⁰ A priest, who taught John psalms as a boy, used to dabble in magic,¹¹ and John even gently chides Thomas à Becket, then chancellor of England and to whom he dedicates his book, for having recently consulted both an aruspex and a chiromancer.¹² At the same time John is anxious to know what "those triflers" had to say, and it must be admitted that his condemnation of some varieties of divination is a bit perfunctory and that he dwells rather fondly upon omens from classical history and upon the interpretation of dreams.

HUGO OF SAINT VICTOR.

Hugo of Saint Victor, another clerical writer of the twelfth century, gives in his *Didascalicon* a brief description of magic which differs in form but agrees substantially with John's.¹³ After the usual meagre historical account of its origin, in the course of which he twice identifies magic with *maleficia*, he says:

"Magic is not included in philosophy but is a distinct subject, false in its professions, mistress of all iniquity and malice, deceiving concerning the truth and truly doing

⁹ *Ibid.*, II, 27.

¹⁰ *Ibid.*, II, 17. Gratian seems to condemn the same book in his *Decretum*, Secunda pars, Causa XXVI, Quæst. vii. Cap. 16. Four such dream books by Daniel are to be found in the British museum, and all were printed before the close of the fifteenth century.

¹¹ *Polycrat.*, II, 28.

¹² *Ibid.*, II, 27; and see Ramsay, *Angevin Empire*, 119-120.

¹³ Printed in Migne, Vol. 176 as "Eruditionis didascalicae libri septem," but Haureau rejects the seventh book (*Les Œuvres de Hugues de Saint-Victor*, Paris, 1886). Magic is discussed in Book VI, Ch. 15 (Migne, cols. 810-812).

harm; it seduces souls from divine religion, promotes the worship of demons, engenders corruption of morals, and impels its followers' minds to every crime and abomination."

He thus makes four points against magic: It is not a part of philosophy, in other words, it is unscientific; it is hostile to true religion; it is improper, immoral, and criminal; it is false and deceptive. These four points may be reduced to two: (1) since law, religion, and learning all condemn it, it is unsocial in every respect; and (2) it is more or less untrue and unreal. At the same time it is clear that to Hugo's mind magic is a broad field more or less coordinate with those of religion and philosophy. He subdivides it, as did John of Salisbury, into *praestigia*, *maleficia*, and *mathematica*, but also into *sortilegia* and *mantice*. These last two, however, refer, like *mathematica*, to arts of divination. *Sortilegia* is divination by lots; *mathematica* covers the activities of *aruspices*, augurs, and readers of horoscopes; while under *mantice* are included geomancy, hydromancy, aeromancy, pyromancy, and necromancy.

GUNDISSALINUS.

Gundissalinus, an archdeacon of Toledo who made translations from the Arabic about the middle of the twelfth century, in a classification which he borrows from Alfarabi, makes "nigromancy according to physics" the fourth of eight subdivisions of "natural science," instead of a department of magic; but admits that he as yet has no detailed acquaintance with it.¹⁴ Yet he has given us a hint of the influence that the transmission of Arabian culture is likely to have upon the attitude toward magic in the Christian West, and in the succeeding century we note a considerable change.

¹⁴ Gundissalinus, *De divisione philosophiae* (ed. by Ludwig Baur, Münster, 1903), pp. 20 and 38.

THOMAS AQUINAS.

In the thirteenth century Thomas Aquinas, who makes a number of allusions to magic in the course of his works,¹⁵ adheres to the essential features of the theological definition, condemning magic as evil and as the work of demons.¹⁶ In the case of the three *magi* of the Gospel story, however, he explains that, while in common speech *magi* are called enchanters (*incantatores*), in the Persian language the word designates philosophers and sages.¹⁷

Aquinas carefully distinguishes magic from miracle.¹⁸ A miracle is contrary to the order of all created nature and can be performed by God alone. Many things that seem to us marvelous or occult are not, strictly speaking, miraculous. Such are the occult virtues of physical bodies "for which a reason cannot be assigned by man."¹⁹ Such are the marvels worked in our lower world by the influence of the constellations. Even more exceeding human comprehension are the doings of demons, who, Aquinas is convinced, can not only deceive the senses and affect the human imagination but also truly transform bodies. Yet even their feats are not true miracles in violation of natural order; they simply add to the marvelous virtues of physical objects and the potent influences of the stars something of their own peculiar powers. After all, their feats can be explained; they operate by means of art; God alone is a cause absolutely hidden from every man.

As for magicians, in their feats they make use of herbs and other physical bodies; of words, usually in the form of "invocations, supplications, and adjurations"; they also

¹⁵ I have used the complete edition of Aquinas's works in 34 volumes, edited by Fretté and P. Maré, Paris, 1871-1880.

¹⁶ *De potentia*, VI, 10; *Contra Gentiles*, III, 104-106; *Quodlibet*, IV, 16. Aquinas makes considerable use of Porphyry's *Letter to Anebo*.

¹⁷ Commentary on Matthew, Cap. 2.

¹⁸ *Summa*, Prima pars, Quaest. 110, Art. 4 and Quaest. 111, Art. 3; *Contra Gentiles*, III, 101-103; *De potentia*, VI, 5; *Sententiae*, II, Dist. 7, Quaest. 2-3.

¹⁹ *Summa*, Secundae secunda, Quaest. 96, Art. 2.

employ figures and characters, sacrifices and prostrations, images and rites, carefully observed times, constellations, and other astrological considerations.²⁰ As a result hidden treasure is found, the future is revealed, closed doors open, men become invisible, inanimate bodies move and speak, apparitions of rational beings are summoned and answer questions. In such feats of magic Thomas firmly believes, but he will not admit that the magician and his materials and procedure are a sufficient cause. Demons really perform the magic. Words, figures, spells are mere signs to them; the poor magician is their dupe. It looks, Thomas admits, as if spirits came only when invoked, and as if they often came unwillingly, and sometimes performed at the magician's bidding good deeds which must be very distasteful to them as evil beings. But in all this they are simply deceiving mankind. "It is not true then that the magic arts are sciences, but rather that they are certain fallacies of the demons."²¹

Aquinas further charges that the practitioners of magic are generally criminals, perpetrating illicit deeds, adulteries, thefts, and homicides; and that at best magic does not aid man in science or virtue but in trivial matters like the discovery of stolen goods. In discussing the "motory art," which professes to acquire knowledge by fasting, prayers to God, figures, and strange words, he declares that demons cannot illuminate the intellect, although they may express in words some smattering of the sciences.²²

But in thus denying that the magic arts are sciences, Aquinas indicates that many thought them so, and that magicians believed themselves able by personal endowments, by subtle use of occult natural properties, by rites and ceremonies, and by the art of astrology, either to

²⁰ *Contra Gentiles*, III, 101-105; *De potentia*, VI, 10; *Summa*, Prima pars, Quaest. 115, Art. 5.

²¹ *Quodlibet*, IV, 16.

²² *Summa*, Secundae secunda, Quaest. 96, Art. 1.

work wonders directly and immediately or to coerce demons to work wonders for them. He thus gives us a glimpse of a different conception of magic from the old theological one.

Moreover, his own conception is scarcely that of John and Hugo. For one thing, he does not explicitly subordinate as many arts to magic as they do. Superstition is perhaps more in favor with him as a generic term than magic. He defines superstition as "a vice opposed to religion by its excess, not that it does more toward a divine cult than true religion, but that it introduces a divine cult either to what it ought not or in a way that it ought not."²³ But the chief difference between Aquinas and John and Hugo is that Aquinas justifies as scientific and moral matters which they classed under magic, and which would to-day be regarded as unscientific. He discusses the casting of lots, various forms of divination, "the occult works of nature," and the art of astrology in a manner not entirely hostile to their respective pretensions.²⁴ Thus while still holding that most arts of divination are the work of evil spirits, he believes that some kinds of divination have a natural basis and are not magic. He believes that bodies can be transformed by the occult virtues of natural things as well as by demons in magic. He recognizes much of astrology as a science, not as magic, although rejecting the extreme pretensions of astrologers. But into his interesting opinions on such points we have no time to go further here.

ALBERTUS MAGNUS.

Albertus Magnus was a contemporary of Aquinas and, like him, a great theologian and commentator upon Aris-

²³ *Ibid.*, Quaest. 92.

²⁴ *Summa*, Secundae secunda, Quaest. 95, Arts. 5-7; and the two brief treatises, *De sortibus* and *De occultis operibus naturae*. His opinions concerning astrology are scattered through a dozen works.

totle. In his *Summa* and *Sententiae*, both theological works,²⁵ Albert, like Aquinas, more or less adheres to the traditional Christian attitude toward magic. He affirms that to employ "magic virtues" is evil and apostasy from the faith, whether one openly resorts to "invocations, conjurations, sacrifices, suffumigations, and adorations" or to some simpler and apparently innocent operation which none the less requires demon aid for its performance. Even of "mathematical virtues" (i. e., of astrological forces) one must beware, especially "in images, rings, mirrors, and characters," lest the practice of idolatry be introduced. Like Aquinas, he believes in the potency of magic. Though in one phase of magic, *praestigia* or illusions, things are made to appear to exist which have no reality, magic can also actually transform objects.

Again, like Aquinas, Albert insists that the feats of magic do not compare with miracles. They do not even happen as instantaneously, although they occur much more rapidly than the ordinary processes of nature. But except for this difference in speed they can usually be explained as the product of natural forces, and by the fact that demons are aided in their operations by the influence of the stars. To change rods into snakes, for instance, as Pharaoh's magicians did, is merely hastening the process by which worms generate in putrefying trees. Indeed, Albert is inclined to believe that the demons "produce no permanent substantial form that would not easily be produced by putrefaction." Even the magic power of fascinating human beings is, after all, only analogous to that of the sapphire to cure ulcers and of the emerald to restrain sexual passion. Thus even in his theological writings Albert attributes magic more to natural forces and to the stars, and less to demons than Aquinas did, or perhaps

²⁵ *Summa*, Secunda pars, Quaest. 30; *Sententiae*, II, Dist. 7 (Albertus Magnus, *Opera omnia*, ed. Borgnet, Paris, 1890-1899, 38 vols.)

we should say that he more closely connects the demons with forces of nature.

Moreover, a much more favorable opinion of magic may be found in Albert's biblical commentaries in his explanation of the *magi* who came to Bethlehem. Now he asserts that "the *magi* are not *malefici* as some wrongly think," and that they also differ from *mathematici*, enchanters, necromancers, *arioli*, *aruspices*, and diviners. Etymologically the *magus* is a great man (*magnus*), "who, having knowledge of all necessities and inferring from the effects of nature, sometimes predicts and produces the marvels of nature.... And this is laudable."²⁶ Again in his commentary on Daniel he quotes Jerome's description of the *magi* as "masters who philosophize about the universe; moreover, *magi* are more particularly called astronomers who search the future in the stars."²⁷ Thus we have magic almost identified with astrology and with natural science, and distinguished from a number of occult arts which the traditional definition identified with it.

In Albert's scientific writings we find yet a third conception of magic suggested by a number of scattered passages in which he refers to magic as if it were a distinct and definite branch of knowledge in his day, of which, though he himself does not treat, he does not seem to disapprove. In one place he refers to writings by Avicenna on magic and alchemy;²⁸ in other passages he mentions magic together with astronomy and necromancy. The "prodigious and marvelous" power of stones and of images and seals in stones, he twice assures us, cannot be really understood without a knowledge of "these three sciences."²⁹ He therefore will not discuss the subject in a treatise on minerals as fully as he might, "since those

²⁶ In *Evang. Matth.*, II, 1. It is interesting to note that to-day the *Catholic Encyclopedia* still insists concerning the three wise men, "Neither were they magicians: the good meaning of *μάγοι* though found nowhere else in the Bible is demanded by the context of the second chapter of St. Matthew."

²⁷ I, 20.

²⁸ Borgnet, *Opera*, Vol. V, p. 26.

²⁹ *Ibid.*, pp. 48 and 55.

powers cannot be proved by physical laws (*principiis physicos*), but require a knowledge of astronomy and magic and the necromantic sciences, which would be considered in other treatises. Albert's friends (*socii*), however, are curious to know the doctrine of images even if it is necromancy, and Albert does not hesitate to assure them that it is a good doctrine in any case. Yet in his theological works he declared the art of images evil "because it inclines to idolatry.... and.... is employed for idle or evil ends."

Albert also counts the interpretation of dreams among "magical sciences" and speaks of the interpreters as wise men (*sapientes*).³⁰ Visions, however, which occur "when one is awake.... but the senses diverted.... are most employed by magicians, who indeed make a specialty of such diversions of the senses and such apparitions and of certain potions which close and stupefy the senses, and through the apparitions then made they conjecture the future."³¹ In one passage Albert remarks that whether fascination is a fact or not is for magic to determine; in another place he classifies fascination as a department of magic.³² In his treatise on the vegetable kingdom he declares that the consideration of "the divine effects" of certain plants is the especial concern of those interested in magic, and he also mentions "those who practise incantations" and necromancers as employing herbs for their marvelous properties.³³ In his treatise on animals he says that enchanters value highly the brain, tongue, and heart of the bird hoopoe, and adds, "We shall not consider this matter at this time, for the investigation of it belongs to another science," —presumably magic.³⁴ On the other hand, in his work on minerals, although he quotes Socrates as having said that an incantation may be performed by suspending or

³⁰ *De somno et vigilia*, III, i, 10. ³¹ *Ibid.*, III, i, 3.

³² *Ibid.*, III, i, 6; and Borgnet, *Opera*, V, 24.

³³ *De vegetabilibus*, V, ii, 3 and 6.

³⁴ *De animalibus*, XXIII, 111.

attaching objects as well as by prayers, adjurations, characters, and images, he proceeds to discuss suspensions and ligatures, especially the wonderful effects produced by wearing certain gems suspended from the neck, on the ground that they operate more naturally, and more properly belong to physical science than to magic.³⁵ In another treatise, mentioning "astronomers, augurs, magicians, interpreters of dreams and of visions, and every such diviner," he admits that almost all men of this class delight in deception and have little education, but he insists that "the defect is not in the science but in those who abuse it."³⁶

These brief allusions to magic indicate that Albert regards it as distinct from the natural sciences except "astronomy," with which he connects it rather closely, but astronomy of course for Albert includes astrology and is a science of superior bodies and stands above the sciences of inferior creation. He says that it is a fundamental principle in the science of the *magi* that all things made by art or nature are moved by celestial virtues.³⁷ But of demons in connection with magic he says nothing in his scientific writings.

In the *Speculum astronomiae* ("Mirror of Astronomy")³⁸ which also seems to be from Albert's pen, a different attitude appears. Instead of nonchalantly correlating magic, astronomy, and necromancy, as was done in the treatise on minerals, the author says nothing of magic and is concerned to distinguish between "astronomy" and necromancy, and in particular between astrological and necromantic images. His aim now is, while admitting the harmful character of necromancy as dealing with demons

³⁵ *Mineral.*, II, iii, 6. ³⁶ *De somno et vigilia*, III, ii, 5. ³⁷ *Mineral.*, II, iii, 3.

³⁸ Contained in volume X of Borgnet's edition. Franz Cumont (*Catalogus codicium astrologorum Graecorum*, V, i, 85) says that Borgnet's text of the *Speculum* is full of errors, and gives a partial new version from manuscripts. Mandonnet, "Roger Bacon et le 'Speculum astronomiae,'" *Revue Neo-Scolastique*, Vol. XVII (1900), argues that Bacon was the author, but his argument is based in large measure on false premises.

and contrary to the Catholic faith, to defend astrology from any such imputations, and to draw up separate lists of books which are bad and necromantic and of those which are "astronomical" and of value. Some of the books now condemned as necromantic are, however, the very ones which in the treatise on minerals³⁹ Albert cited concerning the science of the *magi* and which in his theological *Summa*⁴⁰ he cited as authorities on necromancy. It therefore becomes evident that the *Speculum astronomiae* is a piece of special pleading, written in reply to a contemporary attack upon necromantic and astrological literature. In fact the author cannot restrain himself from advising that the necromantic books be preserved rather than destroyed.

Albert spoke in his scientific writings as if he might sometime write some separate treatises on magic. Two little works have come down to us which somewhat answer that description. They have been regarded as spurious, but were certainly influential, since there seem to be about as many printed editions of them alone as of all Albert's other numerous works. Their titles are *Liber aggregationis, or The Secrets of the Virtues of Herbs, Stones and Animals*, and *The Wonders of the World (De mirabilibus mundi)*.⁴¹ The former seems to be professedly a book of magic since it opens with the assertion that "magical science is not evil, since through knowledge of it evil can be avoided and good attained." The author then plunges at once into the subject of the occult virtues of herbs, stones, and animals. By these, combined with varied ceremonies and due observance of astrological considerations, such marvels can be worked as to alter the attitude of others toward oneself, reveal hidden crimes, deprive men

³⁹ II, iii, 3.

⁴⁰ II, ii, 30.

⁴¹ I have used an edition printed in Amsterdam in 1740 in which these two treatises are bound together with the *De secretis mulierum*, and with the *Physiognomy* of Michael Scot, mentioned below in note 46.

of sleep or force confidences from them when asleep, quiet barking dogs or make cows dry, free prisoners, become invisible, acquire knowledge or a good intellect, tell if one's wife be true, incite sadness or joy or love, freeze boiling water, produce an inextinguishable fire, make the sun bloody or a rainbow to appear, feel no pain under painful circumstances, drink to excess and not get drunk, conquer enemies, escape perils, overcome wild beasts, interpret all sorts of dreams, read others' thoughts, and predict the future. As in Albert's allusions to magic in his scientific writings, so here nothing is said of employing demons to produce these results, and so marvelousness rather than employment of spirits appears as the chief feature of magic.

In the *De mirabilibus mundi* "marvels" rather than "magic" are the theme, but the author has read "the books of necromancy and the books of images and magic books,"⁴² and most of the marvels which he instructs how to produce would probably be pretty generally regarded as magic by his contemporaries. Such are to make men seem headless or with the heads of animals or three heads or the face of a dog, or to make men appear in any form even as angels, or to make the entire house seem full of serpents or elephants. The author regards the human soul and its desires as the greatest force in effecting marvels, though he also recognizes the potency of occult virtues in natural objects, of heat and cold, of the influences of the stars, of procedure fitting the end sought, of suffumigations, and of demons.⁴³ Little, however, is said of demons except in connection with "the science of necromancy in which are manifested the immaterial substances which direct and assist man."⁴⁴ Despite his faith in marvels the author recognizes that "it is the wise man's task to make marvels cease" by adequate explanation of them.⁴⁵

⁴² P. 159.

⁴³ Pp. 158, 166, 170.

⁴⁴ Pp. 168-169.

⁴⁵ P. 158.

MICHAEL SCOT.

We come next to writings which emphasize more the participation of demons in magic and which illustrate in detail the relations between magic, "astronomy," and necromancy which Albertus Magnus suggested. These writings are as follows: (1) An elaborate treatise of the early thirteenth century on astrology, astronomy, and various related fields such as music and geography, dedicated to his patron the emperor Frederick II by Michael Scot,⁴⁶ who was no mere court astrologer but the introducer to medieval Christendom of many of the works of Aristotle and a translator of other writings from the Arabic; (2) A commentary of the early fourteenth century upon that brief but standard medieval astronomical treatise, *The Sphere* of Sacrobosco, by Cecco d'Ascoli,⁴⁷ who after being professor of astrology at the university of Bologna and court astrologer to the duke of Florence was condemned to the stake by the Inquisition in 1327; (3) A book of magic called *Picatrix*,⁴⁸ translated from Arabic into Spanish by order of the learned Alphonse X of Castile who reigned 1252-1284 and who is notable for his astronomical tables and mild law concerning magic.⁴⁹

Michael Scot combines traces of the patristic definition

"Scot's work divides into four parts; a general preface, a *Liber introductorius*, a *Liber particularis*, and a *Liber physionomiae*. Of these the first two exist in the Bodleian MS. 266 (saec. XV, 218 fols., long double columns, text greatly abbreviated, and in many different hands illustrated); and at Munich, Staatsbibliothek, Cod. Lat. 10268 (saec. XIV, 146 fols.). The *Liber particularis* is found only at the Bodleian in MS. Canon Misc. 555, where it occupies fols. 1-59, and the *Liber physionomiae*, fols. 59-88. The last, however, has been separately printed. (See note 41.)

"I used two editions of 1499 and 1518 at the British Museum.

"The work is extant in Latin translations in MSS. XX, 20, and XX, 21 of the National Library at Florence. Both manuscripts have the same colophon, dated in 1536 and the pontificate of Paul III, but their contents are not always identical although they roughly correspond. Symphorien Champier, writing in 1514, refers to *Picatrix* in his edition of the *Conciliator* of Peter of Abano.

"*Los Codigos Espanoles concordados y anotados: Codigo de las siete partidas*, 2d ed., Madrid, 1872, Vol. IV. La setena partida: Titulo XXIII: Ley 1-3. Divination of the future by the stars is sanctioned in the case of persons properly trained in astronomy, although other varieties of divination

of magic with the attitude of an astrologer and with citations from Arabian sources and from books of necromancy and of the notory art. Thus he condemns magic and necromancy, but lists as "arts which are in a certain measure palliated under the name of astronomy," geomancy, hydromancy, aeromancy, pyromancy, nigromancy, augury, physiognomy, praestigiomancy, the notory art, lot-casting, and alchemy.⁵⁰ He represents magicians as acquainted with secrets of nature and as employing herbs as well as characters and incantations.⁵¹ He states that alchemists, nigromancers, and workers in the notory art owe more to astrology than they admit,⁵² and informs us that by astronomical images very wise demons can be conjured to give responses.⁵³ He also mentions "the virtues who rule the circles of the planets," "the legion of damned spirits" who exist in the winds,⁵⁴ and the evil spirits in the moon who are wise in all sciences and may be invoked by conjurations.⁵⁵ He states that since demons are by nature fond of blood, and especially of human blood, nigromancers or magicians in performing their experiments often mix water with real blood or use wine that has been exorcised to make it bloody, "and they sacrifice with flesh of a living human being, such as a bit of their own flesh or of a corpse, and not with the flesh of brutes, knowing that the consecration of a spirit in a ring or a bottle cannot be achieved except by the performance of many sacrifices."⁵⁶ Scot also lists the names by which spirits may be invoked.⁵⁷ Thus he shows more interest in necromancy than is consistent with his formal condemnation of it and magic.

are forbidden; and while those who conjure evil spirits or who make waxen, metallic or other images with the aim to harm their fellows are to be punished by death, those who employ incantations with good intentions and good results are pronounced deserving of reward rather than penalty.

⁵⁰ Bodleian MS. 266, fol. 22.

⁵¹ *Ibid.*, fol. 23.

⁵² *Ibid.*, fols. 2 and 20.

⁵³ *Ibid.*, fol. 21.

⁵⁴ *Ibid.*, fols. 28-29.

⁵⁵ Canon misc., fol. 17.

⁵⁶ Bodl. MS. 266, fol. 22.

⁵⁷ *Ibid.*, fol. 172.

CECCO D'ASCOLI.

The attitude of Cecco d'Ascoli is very similar.⁵⁸ He gives a classification of the magic arts almost identical with that by Hugo of St. Victor, but states that he derives it from the *Liber de vinculo spiritus* of Hipparchus. He of course does not regard astrology as a part of magic, and declares that while one can learn something of the future through magic, the science of the stars is "a more excellent way." Magic is, he says, "emphatically censured by holy mother church."⁵⁹ This fact, however, does not restrain him from frequently citing magic books such as Apollonius's *Liber artis magicae*, nor from telling his students—his commentary is evidently a set of classroom lectures—all the necromancy that he happens to know. Thus when Sacrobosco describes the *coluri*, or circles whose function is to distinguish the solstice and equinox, Cecco comments that Hipparchus in the *Liber de hierarchiis spirituum* tells of incubi and succubi who inhabit these circles and by whose virtue in a greater conjunction divine men are born such as Merlin was and Antichrist will be.⁶⁰ When Sacrobosco mentions the four cardinal points, Cecco is reminded of Hipparchus's statement in the *Liber de ordine intelligentiarum* that certain princes of the demons "hold the four parts beneath the sky. For expelled from heaven they occupy the air and the four elements."⁶¹ When Sacrobosco speaks of the zenith or poles in a purely astronomical way, Cecco quotes Hipparchus again as saying. "O wonderful zenith and godlike nature, etc., after the manner of an invocation, or Solomon in the *Liber de umbris idearum* as exclaiming, "O arctic *manes*, O antarctics

⁵⁸ The following references to Gecco's Commentary apply to the edition of 1518 in which it occupies the first 23 leaves of a collection of commentaries upon Sacrobosco and of other astronomical treatises.

⁵⁹ Fol. 3: *a sancta matre ecclesia vituperabiliter improbata.*

⁶⁰ Fol. 14.

⁶¹ Fol. 15.

propelled by divinity.”⁶² When Sacrobosco treats of climates, Cecco remarks that the word may be understood in two ways, astronomically or necromantically. It is in the latter sense that Zoroaster, “the first inventor of the magic art,” uses the word when he says, “For those climates are to be marveled at, which with flesh of corpses and human blood give responses the more trustworthily.” “By this,” continues Cecco, “you should understand those four spirits of great virtue who stand *in cruciatis locis*, that is, in east, west, north and south, whose names are these, Oriens, Amaymon, Paymon and Egim, spirits who are of the major hierarchy and who have under them twenty-five legions of spirits apiece. Therefore because of their noble nature these seek sacrifice from human blood and from the flesh likewise of a dead man or cat. But this Zoroastrian art cannot be carried on without great peril, fastings, prayers, and all things which are contrary to our faith.”⁶³

Such a belated and somewhat perfunctory warning that these things are contrary to the Christian religion is characteristic of Cecco. Elsewhere he calls these spirits demons and diabolical⁶⁴ and states with Augustine that “spirits who are outside the order of grace” cannot truly transmute bodies nor raise the dead, nor do any marvels and feats of magic except those which can be accounted for by the occult virtues of nature.⁶⁵ He also asserts that a “Floron,” mentioned by Salomon in the *Liber de umbris idearum*, was of the hierarchy of cherubim and was confined in a mirror by a major invocation, and that this Floron knew many secrets of nature and deceived King Manfred and others by ambiguous oracles. “So beware of these demons because their ultimate intention is to deceive Christians to the discredit of our Lord Jesus Christ.”⁶⁶

⁶² Fols. 20 and 17.

⁶³ Fol. 16.

⁶⁴ Fol. 21.

⁶⁵ Fol. 17.

⁶⁶ Fols. 17 and 22.

Yet on the next page we find Cecco saying that if any one wishes to make an image in order to obtain responses from a spirit, he ought to observe the instructions which follow; while five pages later he cites a response of this same Floron as to the time when demons are least liable to deceive one and when as a consequence it is best to consult them. In short Cecco's work is less a commentary on Sacrobosco's *Sphere* than a manual of astrological necromancy.

PICATRIX.

Picatrix is a confused compilation of extracts from occult writings and a hodgepodge of innumerable magical and astrological recipes. The author states that he "has compiled this book," that he intends to set forth "in simple language" what past sages have concealed in cryptic words, and that he has spent some six years in reading 224 books by "ancient sages."⁶⁷ Whenever modern compilers of the notions of folklore and the magical customs of aborigines shall have exhausted their resources, a rich mine will still await them in this book of magic.

For *Picatrix* is openly and professedly a book of magic. At the close of the first of its four books we are told that its contents are "the roots of the magic art" and that "without them one cannot become perfect in such arts."⁶⁸ Throughout all four books "magic works," "magic effects," "magical sciences," and "the operator of magic" are mentioned, and books of magic by Abrarem (Abraham?), Geber, and Plato are cited.⁶⁹ It is true that the term necromancy is also employed frequently and a chapter devoted to its definition,⁷⁰ and that astrological images and

⁶⁷ MS. XX, 20, fols. 1 *verso* and 53 *recto*.

⁶⁸ *Ibid.*, 15v.

⁶⁹ *Ibid.*, 7v., 44r., 44v., 22v., 23r., 28r., 40r., 50r., 51r., 99r.,; MS. XX, 21, fols. 78r. and 79v.

⁷⁰ *Liber I*, Cap. 2. This chapter is much briefer in MS. XX, 21 than in MS. XX, 20.

invocations of demons are the subjects most discussed. But it is said on the supposed authority of Aristotle that the first man to work with such images and to whom spirits appeared was Caraphrebim, the inventor of the magic art.⁷¹ It is also affirmed that the science of the stars is the root of magic, that the forms of planets or astronomical images "have power and marvelous effects in magic operations," while after announcing his intention of listing "the secrets of the ancient sages in the magic art" the first thing that our author divulges is that the influence of Saturn exceeds the influence of the moon.⁷²

On the whole then, while magic is not defined at length in *Picatrix*, it seems justifiable to apply it as a general term covering the contents of the book and to regard astronomical images and invocations of demons as two of magic's leading characteristics. *Picatrix* regards magic as a science, as a superior branch of learning, to excel in which many other studies must first be mastered; and he believes that the greatest philosophers of antiquity, like Plato and Aristotle, have written works of magic.

Much use of natural objects is made in the various recipes of *Picatrix*. Here is one brief instance: Adam the prophet says that if you take 14 grains of the fruit of the laurel tree, dry them well and pulverize them and put the powder in a very clean dish in vinegar, and beat it with a twig from a fig tree, you can make any one you wish possessed of demons by giving him this powder to drink.⁷³ One chapter is especially devoted to "the virtues of certain substances produced from their own peculiar natures," and the author further explains that "in this section we shall state the marvelous properties of simple things as well of trees as of animals and of minerals."⁷⁴ In actual procedure, however, the use of several things combined is

⁷¹ MS. XX, 20; fol. 55v. ⁷² *Ibid.*, 32v. and 28r. ⁷³ MS. XX, 21, fol. 79v.

⁷⁴ Lib. IV, Cap. 8. MS. XX, 20, fol. 108v; MS. XX, 21, fol. 86r.

usually recommended, as a suffumigation of 14 dead bats and 24 mice, to give a comparatively simple example.⁷⁵

On the supposed authority of Aristotle in a book written to Alexander, detailed instructions are given how to make four "stones" of great virtue and of elaborate composition by procedure more or less alchemistic.⁷⁶ Indeed, there are listed all sorts of "confections," compounds, and messes, either, to burn or sacrifice or eat or drink or smell of or anoint oneself with, in order to bring various wonders to pass. The ingredients employed include different oils and drugs, butter, honey, wine, sugar, incense, aloes, pepper, mandragora, twigs, branches, adamant, lead, sulphur, gold, the brains of a hare, the blood of a wolf, the urine of an ass, the filth of a leopard, and various portions of such animals as apes, cats, bears and pigs.

Hermes is quoted as saying that there are many marvels for necromancy in the human body,⁷⁷ various parts of which are often employed. Thus in making a magic mirror one is bidden to employ a suffumigation of seven products of the human body, namely, tears, blood, ear-wax, spittle, *sperma*, *stercus*, *urina*.⁷⁸ Vile and obscene substances seem in great demand for purposes of magic throughout the book. Besides ingredients, all sorts of receptacles and material paraphernalia are listed: vessels, jars, vases, braziers, crosses, candles, crowns, etc. *Picatrix*, like the *De Mirabilibus*, considers heat an important force in magic and mentions both elemental and natural heat, the former referring to the use of the element fire in sacrifice, suffumigation and the preparation of magic compounds, the latter designating the heat of digestion when recipes must be eaten to take effect.⁷⁹

Much is said of the magician himself as well as of the materials which he employs. He should have faith in his

⁷⁵ MS. XX, 20, fol. 70r.

⁷⁶ Lib. III, Cap. 10. MS. XX, 20, fol. 73v. MS. XX, 21, fol. 53r.

⁷⁷ MS. XX, 21, fol. 60v. ⁷⁸ *Ibid.*, 22v.

⁷⁹ Lib. I, Cap. 2.

procedure, put himself into an expectant and receptive mood, be diligent and solicitous.⁸⁰ Often chastity is requisite, sometimes fasting or dieting, sometimes the wearing of certain garments.⁸¹ He must have studied a long list of other sciences before he can attempt necromancy, but then to succeed in magic he must drop all other studies and devote himself to it exclusively.⁸² A little knowledge of necromancy is a dangerous thing, and the ignorant meddler therein is liable to be violently slain by indignant demons.⁸³ Much depends also upon the magician's personality and natural fitness. No one can succeed in the science of images unless his own nature is inclined thereto by the stars. Some men are more subtle and spiritual, less gross and corporeal than others, and hence more successful in magic.⁸⁴ The ancients, when they wished to employ a boy in magic, used to test his fitness by fire as well as to make sure that he was physically sound.⁸⁵

It has already been implied that great stress is laid upon procedure. Images of persons or things concerned are extensively employed. Thus to catch fish one makes an image of a fish, and to bewitch a girl one makes a waxen image of her and dresses it in clothes like hers. In both cases, however, there is additional ceremony to be observed. The head of a fish should be fashioned first; the image is to be poised on a slender rod of silver, and this is to stand erect in a vessel which is to be filled with water, sealed tightly with wax, and dropped to the bottom of the stream where one is to fish.⁸⁶ In the bewitching of the girl, which is told as an actual occurrence, the object was to make her come to a certain man. Hence another image was made of him out of a pulverized stone mixed with gum, and the two images were placed facing each other in a vase where seven twigs of certain trees had been ar-

⁸⁰ I, 4.

⁸¹ II, 12; III, 5 and 7 and 12, etc.

⁸² IV, 5.

⁸³ MS. XX, 20, fol. 12*r.* and MS. XX, 21, fol. 75*v.*

⁸⁴ Lib. III, 6 and IV, 1 ⁸⁵ MS. XX, 21, fol. 47*v.* ⁸⁶ MS. XX, 20, fol. 10.

ranged crosswise. The vase was then buried under the hearth where there was a moderate fire and a piece of ice. When the ice had melted the vase was unearthed and the girl was immediately seen approaching the house. In the reverse process to free her from the spell a candle was lit on the hearth, the two images were taken out and rudely torn apart and an incantation uttered.⁸⁷

To make a spring that is going dry flow more freely a small and comely virgin should walk up and down beating a drum for three hours, and then another small and good-looking girl should join in with a tambourine for six hours more. To ward off hail storms a company of people should go out in the fields, half of them tossing handfuls of silk toward the sky and the other half clapping their hands and shouting as rustics do to frighten away birds.⁸⁸ Tying seven knots and saying an incantation over each is another specimen of the ceremonial in *Picatrix*.

Ritual also plays an important part in the invocation of spirits. If one wishes to invoke the spirit called "Complete Nature" he must enter a spick and span room while the moon is in the first degree of Aries. Various receptacles filled with different foods and combustibles must be arranged in a certain way on a table. Then he must stand facing the east and invoke the spirit by its four names seven times and repeat a prescribed form of prayer for increase of knowledge and of moral strength.⁸⁹ To draw down the virtue and power of the moon one crowns oneself in the favorable astrological hour and goes to a green spot beside a stream. There he beheads with a bone—under no circumstances employing iron—a cock with a divided crest. He stands between two braziers filled with live coals on which he casts grains of incense gradually until smoke arises; then, looking toward the moon, he should say, "O

⁸⁷ *Ibid.*, fol. 52.

⁸⁸ *Ibid.*, 103v.; MS. XX, 21, fols. 81v., 82r.

⁸⁹ III, 6. MS. XX, 20, fols. 54-55; MS. XX, fols. 21, 32-34.

moon, luminous and honored and beautiful, thou who shatterest darkness by thy light, rising in the east and filling the whole horizon with thy light and beauty, I come to thee humbly asking a boon." Having stated his wish, he withdraws ten paces, facing the moon the while and repeating the above formula. Then more incense is burned and a sacrifice performed and characters inscribed on a leaf with the ashes of the sacrifice and a bit of saffron. This leaf is then burned and as its smoke rises the form of a well-dressed man will appear, who will answer the petition.⁹⁰

Throughout *Picatrix* planets and spirits are closely associated. Many instructions are given how to pray to each of the planets and to work magic by their aid, just as if they were demons. It is hard to say whether the spirits are more thought of as forces in nature or the stars as gods. A necromancer who does not know astronomy is helpless, and each planet has a list of personal names associated not only with itself but with its every part and position.⁹¹ Lists are also given of the boons which one may ask from each planet, and of the stones, metals, animals, trees, colors, tinctures, odors, places, suffumigations, and sacrifices appropriate to each planet and sign of the zodiac, in order that one may use the proper materials, eat the right food, and wear the right clothes when petitioning any one of them.⁹² Let us remember, too, that the natural qualifications of the magician depend upon his horoscope.

Finally *Picatrix* devotes much space to astronomical images,⁹³ which, engraved preferably upon gems in accordance with the aspect of the sky at some instant when the constellations are especially favorable, are supposed to receive the celestial influences at their maximum and store them up for future use. That they receive "the force of

⁹⁰ IV, 2. MS. XX, 21, fol. 68v.

⁹¹ III, 9. MS. XX, 20, fol. 71r. MS. XX, 21, fol. 50r.

⁹² II, 5 and 10; III, 1 and 2.

⁹³ Liber II, *passim*: also I, 4-5 and IV, 9.

the planets" and do marvelous works, such as the invocation of demons, is, *Picatrix* believes, "proved by nature and by experiment." He lists them for 48 figures made from the fixed stars, for the 28 mansions of the moon, for the signs of the zodiac and the planets. As an example may be given one of the images for Saturn: "A man erect on a dragon holding a sickle in his right hand and a spear in his left hand, and clad in black clothing and a panther skin." This image "has power and marvelous effects in magic works."⁹⁴ Characters made up of lines and geometrical figures are also derived from the constellations and are supposed to possess marvelous efficacy.

Some of the results attributed to images and characters are to drive away mice, free captives, throw an army into a town, render buildings safe and stable or impede their erection, acquire wealth for oneself or one's friends, make two persons fall in love, make men loyal to their lord, make the king angry with some one, cure a scorpion's sting, walk on water, assume any animal form, cause rain in dry weather and prevent rain in wet weather, make the stars fall or sun and moon appear to be divided into many parts, ascend into the air and take the form of a falling star, speak with the dead, destroy a city or enemy, traverse great distances in the twinkling of an eye. Similar are the aims of incantations, invocations, and recipes, as has already been indicated in several cases. Ten "confessions" are listed that stop evil tongues; eight, that generate discord and enmity; six, that taken in food cure impotency; seven, that induce a sleep like unto death; ten, that induce a sleep from which one never wakes.⁹⁵ Others prevent dogs from barking at you, produce green tarantulas or red serpents, remove bothersome frogs from pools, cause water to burn and appear red, enable one to see small objects a

⁹⁴ II, 10. MS. XX, 20, fol. 32v. MS. XX, 21, fol. 14v.

⁹⁵ III, 11. MS. XX, 20, fol. 78v. MS. XX, 21, fol. 58v.

long way off, make the winds and tempests obey you, deprive of memory or sense or speech or sight or hearing, and so on through a long gamut. We note that the aims are now good, now evil, that they are infinitely varied, and that they are very much like the aims of the two works attributed to Albertus Magnus where so little use of demons was made.

THABIT BEN CORRA.

Astronomical images are again associated with magic in a little treatise of fourteen pages by Thabit ben Corra ben Zahrūn el Harrānī, whom Albertus Magnus, Peter of Abano, Cecco d'Ascoli, and *Picatrix* all cite as an authority on images,⁹⁶ and whom Roger Bacon styles "supreme philosopher among all Christians."⁹⁷ Hence, although he was born in Mesopotamia in 836 and lived for the most part at Bagdad until his death in 901, we may regard his conceptions as still influential in thirteenth century Europe. His treatise concludes: "And this is what the highest God wishes to show to his servants concerning magic, that his name may be honored and praised and ever exalted through the ages." In the printed edition of Frankfort, 1559, it is entitled *De tribus imaginibus magicis*.⁹⁸ Yet no mention is made of demons, and we are told that the material, be it lead or bronze or gold or wax, from which the image is made is unimportant, and that all depends upon the astronomical conditions at the time of construction. However, some sort of non-astronomical ceremony is usually added, such as burying the image, wrapping it in a clean cloth, writing upon it the names of the persons concerned and the end sought, and "naming the image by a

⁹⁶ *Mineral.*, II, iii, 3; *Spec. astron.*, Cap. XI; *Conciliator*, Diff. X, fol. 16, GH; *Sphera*, Cap. 3

⁹⁷ Bridges, I, 394.

⁹⁸ A treatise entitled *Liber prestigiorum Thebidis (Elbidis) secundum Ptolemeum et Hermetem per Adhelardum bathoniensem translatus*, which occupies fols. 70-74 in MS. 328 at Lyons, is possibly the same work.

famous name"—which perhaps has reference to spirits. The objects sought are similar to those in *Picatrix*.

ROGER BACON.

From the picture of magic from the inside and by one favorably disposed toward it which *Picatrix* affords we turn to a last description by one of the most critical and scientific minds of the thirteenth century, Roger Bacon. He mentions magic a number of times in his *Opus maius* and *Opus tertium*, and also wrote a short treatise entitled, "On the Secret Works of Art and Nature and the Nullity of Magic."⁹⁹ He uses magic as a generic term and adopts the same fivefold division of it as Hugo and Cecco.¹⁰⁰ Toward it his point of view is that of the Christian man of science rather than of the theologian. He does not sound a religious retreat from magic but a scientific attack upon it. What impresses him most is not its irreligious nor criminal character, although he calls the magicians *maledicti*¹⁰¹ and is careful to admit the possibility of demons participating in magic, but that magic is fraudulent and futile. He couples the words "false and magical,"¹⁰² speaks of the "figments of the magicians,"¹⁰³ and associates magic, not like Albert with necromancy and astronomy, but with necromancy and deception.¹⁰⁴ For him magicians are neither *magni* nor philosophers and astronomers; in half a dozen passages he classes them with old wives and witches.¹⁰⁵

He represents magic as using sleight-of-hand, ventriloquism, subtle mechanism, darkness, and confederates to simulate results which it is unable to perform.¹⁰⁶ Or by

⁹⁹ Roger Bacon, *Opus maius*, ed. J. H. Bridges, Oxford, 1897, 2 vols. and a third published in 1900. Roger Bacon, *Opera inedita* (including the *Opus tertium* and *De secretis*), ed. J. S. Brewer in Vol. XV of *Rerum Britannicarum mediae aevi scriptores*, London, 1859.

¹⁰⁰ Bridges, I, 240.

¹⁰¹ *Ibid.*, 395 and 399.

¹⁰² Brewer, pp. 47, 95.

¹⁰³ *Ibid.*, 532.

¹⁰⁴ Bridges, I, 262.

¹⁰⁵ *Ibid.*, 395-6, 398, 399; Brewer, 46-7, 95, 98.

¹⁰⁶ Brewer, 523.

use of natural objects it idly flatters itself that it coerces spirits who in reality respond only with evil intent and as God permits. Thus the *mathematici* in particular not only wrongly ascribe fatal necessity to the stars and "invoke demons by conjurations and sacrifices to supplement the influence of the constellations," but they mar their observations of the sky by circles and figures and characters of the vainest sort and by very stupid incantations and senseless prayers in which they put their trust," and they often resort to "confederates, darkness, deceptive mechanisms, sleight-of-hand—methods in which they know there is allusion—and by those methods in which there is no virtue from the sky they perform many feats that seem marvels to the stupid."¹⁰⁷ As for incantations, "the human voice has not the power that magicians imagine"; and when magic words are spoken, "either the magician accomplishes nothing or the devil is the real author of the work."¹⁰⁸ Bacon dismisses the views of magicians concerning fascinations and transformations as "worthless," "stupid," and so on.¹⁰⁹

But it is clear from Bacon's frequent references to magic that it is a delusion still very much alive. Indeed he expressly asserts not only that magic was prevalent in antiquity, though opposed by philosophy, and that magicians resisted the early church,¹¹⁰ but also that "every nation is full" of the superstitions sown by demons, witches, and magicians.¹¹¹ "Books of the magicians," falsely attributed to Solomon and ancient philosophers and which "assume a grand-sounding style," are in circulation but are really "new inventions" and "ought all to be prohibited by law, since they abound in so many lies that one cannot distinguish the true from the false."¹¹²

¹⁰⁷ Bridges, I, 241.

¹⁰⁸ Brewer, 531, and 96.

¹⁰⁹ Brewer, 98; Bridges, I, 399.

¹¹⁰ Brewer, 29; Bridges, I, 29 and 241.

¹¹¹ Bridges, I, 395.

¹¹² Brewer, 526 and 531.

Indeed, Bacon seems to think that magic has taken such a hold upon men that it can be uprooted only by scientific exposition of its tricks and by scientific achievement of even greater marvels than it professes to perform. Perhaps he realizes that religious censure or rationalistic argument is not enough to turn men from these alluring arts, but that science must show unto them yet a more excellent way, and afford scope for that laudable curiosity, that inventive and exploring instinct which magic pretends to gratify. He asserts concerning experimental science: "It alone instructs how to consider all the follies of the magicians, not to confirm them, but to shun them, just as logic deals with sophistry."¹¹³ Bacon also contends that the wonders of nature and the possibilities of applied science far outshine the feats of magicians.¹¹⁴ Science, in short, not merely attacks magic's front; it can turn its flank and cut it off from its base of supplies.

But Bacon's science is sometimes occult science. Some of his "secret works of art and nature" would be classified as magic by many of our authors. He really goes about as far as Albertus Magnus in credulous acceptance of superstition and marvels, but does not apply the term magic to what Albert admits is magic. Bacon has no intention of classifying as magic all astrology, or all use of incantations, characters, and fascination. He holds that there are two meanings of the word *mathematica*, which may be used to denote either a branch of magic or a part of philosophy, although some theologians ignorantly condemn both alike.¹¹⁵

Bacon also complains that the mass of students and professors and many authorities in theology and canon law call all images magical indiscriminately, and that as a consequence "scarcely any one has dared to speak in public"

¹¹³ Bridges, II, 172.

¹¹⁴ Brewer, 532-537.

¹¹⁵ Bridges, I, 239 and 247; Brewer, 27.

of the marvels that can be wrought by use of astronomical images, "for such men are immediately called magicians although really they are very wise."¹¹⁶ Similarly, although haphazard fascination is magic, Bacon holds that just as certain bodily diseases are contagious, so if some malignant soul thinks powerfully of infecting another and desires this ardently and is full of faith in its own power to injure, "there is no doubt that nature will obey thought, as Avicenna shows, . . . and this much is not magic."¹¹⁷

Bacon also does not doubt that the human voice "has great virtue, though not that power which magicians imagine"; and he declares that words are the most appropriate instrument of the soul, as is shown by the fact that almost every miracle from the beginning of the world has been performed by the use of words:¹¹⁸ "For where the attention, desire, and virtue of the rational soul, which is worthier than the stars, concur with the power of the sky, either a word or some other work must be produced of marvelous power in altering the things of this world, so that not natural objects only but souls will be inclined as the wise operator wishes." Incantations of this sort, "brought forth by the exertion of the rational soul and receiving the virtue of the sky as they are uttered" are philosophical, not magical.¹¹⁹

Bacon wants books of magic destroyed, but he states that many writings are reputed to be magic which are nothing of the kind but contain sound learning.¹²⁰ He accuses magicians not merely of ascribing falsely various "enormities" to Solomon, but also of interpreting incorrectly and making evil use of "enigmatical writings" which he believes Solomon really did write.¹²¹ After all this we are not surprised at his complaint that men are confusing

¹¹⁶ Bridges, I, 394.

¹¹⁷ *Ibid.*, 398.

¹¹⁸ Brewer, 96 and 528-531; Bridges, I, 398.

¹¹⁹ Bridges, I, 395.

¹²⁰ Brewer, 532.

¹²¹ Bridges, I, 392.

science and philosophy with magic; and that contemporary theologians, Gratian, and "many saints" "have condemned many useful and splendid sciences along with magic."¹²² Indeed we strongly suspect that Bacon has made up for himself such a definition of magic that he can condemn it and not be accused of it.

It would be unjustifiable to attempt a final definition of magic on the basis of data from so brief and late a period in its history as the one here considered. But our material seems to offer valuable suggestions toward such a definition. Varying in some respects as are the descriptions of magic which have been here summarized, they seem to be but different views of the same thing. Magic appears on the whole as a great primary division of human thought and activity. Other subjects are subordinated to it, not it to any other field. Where some of our writers draw a line between magic and astrology or between certain other forms of divination and magic, it is apt to be because they approve of the one and feel that they ought to disapprove of the other. Magic appears as a human art or group of arts employing varied materials in varied rites, often fantastic, to work a great variety of marvelous results, which offer man a release from his physical, social, and intellectual limitations, not by the imaginative and sentimental methods of music, melodrama, and romance, nor by religion's spiritual experience, but by operations supposed to be efficacious here in the world of external reality. Some writers lay great stress on resort to spirits in magic, some upon the influences of the heavens, some on both these, and some almost identify the two; but, except as theological dogma insists upon the demoniacal character of magic, it cannot be said that spirits or stars are thought of as always necessary in magic. The *sine qua non* seems to be a human operator, materials, rites, and the aiming

¹²² *Ibid.*, 396.

at a result that borders on the impossible, either in itself or because of the means employed.

In our authors it is difficult to account for the occult properties attributed to things and acts, and to discern any one underlying principle, such as sympathy, symbolism, imitation, contagion, resemblance, or association, guiding the selection of materials and rites for magic. This is either because there never was such a principle, or because we deal with a late stage in the development of magic, when the superstitions of different peoples have coalesced, when its peculiar customs have become confused with those of science and religion, after its primitive methods have been artificially over-elaborated, and after many usages have been gradually corrupted and their original meaning forgotten. Whether magic is good or evil, true or false, is with our authors a matter of opinion, in which the majority hold it to be true but evil. Few, however, can avoid a wholesome feeling that there is something false about it somewhere. Finally, our material shows conclusively that the history of magic is bound up with the history of science as well as with folk-lore, primitive culture, and the history of religion.

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